Prototypical Peripheral Toponym Pairs Expressing the Concept ‘All Over the Country’ as a Part of the Mental Map

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Abstract

Expressing the concept ‘all over the country’ by mentioning one or more name pairs is a well-known phenomenon. A Dutch example is ‘Van Delfzijl tot Maastricht’, Delfzijl being situated in the extreme north of the country, Maastricht in the south. Such expressions are not only used on the national level, but also on subnational (for example, provinces) and supranational levels. Obviously, they arise spontaneously, many of them being preceded (or followed) by phrases like “overall in Nederland” [all over the Netherlands]; it is improbable indeed that anyone would first turn to an atlas or map before creating them. This paper departs from the idea that, if a country (etc.) has oblong contours, toponym pairs may preferably be chosen which are most distant from each other; this would illustrate ‘ubiquity’ better than choosing shorter ones. It focuses on the Netherlands and will deal, among others, with the following questions: (1) Which toponyms are most ‘popular’, and why? (2) If toponyms refer to cities and towns, does their ‘popularity’ correlate with a high population, with news coverage, or both? (3) Is there a preference for any combination of compass directions, for example, for cardinal points (contrary to ordinal ones)? And if so, is the combination of compass directions concerned associated with the longitudinal direction (if the country concerned has oblong contours)? (4) Is there a fixed pattern in the direction expressed by the name order within name pairs? It is, for example, conceivable that there is a tendency to prefer N–S to S–N, considering the prominent position of the northern compass point.

Keywords Cardinal compass points · Estimated distances · Mental map · Newspaper coverage · Oblong contours · Ordinal compass points · Prototypical toponyms · Provincial Capitals · Randstad · Toponym pairs · Ubiquity

Zusammenfassung

Die Umsetzung des Konzepts „all over the country“ durch das Erwähnen eines oder mehrerer Namenspaare ist ein weit verbreitetes Phänomen. Ein niederländisches Beispiel ist „Van Delfzijl tot Maastricht“: Delfzijl liegt sehr nördlich im Land, während sich Maastricht im Süden befindet. Solche Bezeichnungen werden nicht nur auf nationaler, sondern auch auf subnationaler (z.B. Provinzen) und supranationaler Ebene eingesetzt. Offensichtlich erwachsen diese Bezeichnungen spontan. Viele von ihnen werden begleitet von Phrasen wie „overall in Nederland“ [überall in den Niederlanden]; es ist unwahrscheinlich, dass jemand erst einen Atlas oder eine Karte zu Rate zieht, bevor der Name kreiert wird. Dieser Artikel fußt auf der Idee, dass Toponympaare vorzugsweise anhand der größten Distanz voneinander gewählt werden, sofern ein Land (etc.) längliche Konturen aufweist. Dies illustriert Allgegenwärtigkeit mehr als die Bildung (räumlich) kürzerer Paare. Der Aufsatz konzentriert sich auf die Niederlande und er behandelt, u.a., folgende Fragen: (1) Welche Toponyme sind am ‚beliebtesten‘, und warum? (2) Falls sich Toponyme auf Städte bzw. Kleinstädte beziehen, korreliert dann ihre ‚Popularität‘ mit einer hohen Bevölkerungszahl, mit Berichterstattung, oder mit beidem? (3) Gibt es eine Bevorzugung für eine Kombination von Kompassrichtungen, z.B. für kardinale Punkte (im Gegensatz zu ordinalen)? Und falls ja, steht die Kombination aus betroffenen Kompassrichtungen im Zusammenhang mit der longitudinalen Richtung (sofern das Land längliche Konturen hat)? (4) Existiert ein festes Muster hinsichtlich der Richtung, die durch den Namenreihenfolge innerhalb von Namenpaaren ausgedrückt wird? Es ist beispielsweise denkbar, dass es eine Bevorzugungstendenz von N-S gegenüber S-N gibt aufgrund der auffälligen Position des nördlichen Kompasspunkts. (5) Gibt es eine Präferenz bezogen auf die Abfolge, in der Elemente in Namenpaaren auftreten?

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1 Introduction

Expressing the concept ‘all over the country’ by mentioning one or more name pairs is a widespread phenomenon. A Dutch example is ‘Van Delfzijl tot Maastricht’, Delfzijl being situated in the extreme north of the country, Maastricht in the south (Fig. 1) (Source: https://de.wikipedia.org/wiki/Das_Lied_der_Deutschen#/media/File:Maas_memel_etsch_belt.svg). No less than two name pairs occur in Heinrich Hoffmann von Fallersleben’s *Lied der Deutschen* (1841): “Von der Maas bis an die Memel, / Von der Etsch bis an den Belt/Deutschland, Deutschland über alles” (Fig. 2). An American counterpart is in a song by Woody Guthrie: “This land is my land, this land is your land/From California to the New York Island”, etc. Combinations of three name pairs have also been found.

Such expressions are not only used on the national level, but also on subnational and supranational levels (for example, provinces and continents), or in non-administrative areas, like the Flemish–Dutch language area (“Van Delfzijl tot Kortrijk”). A carnival song in the Dutch province of Limburg (Fig. 3) contains the following lines: “Vaan Eijsde tot de Mookerheij, / Lop eederein te zinge.” [From Eijsden to the Mookerhei everybody is singing].

This paper departs from the idea that utterances like the ones just mentioned result from a ‘sense of place’, the feelings people cherish with regard to their territory (see Walmsley and Lewis 1993: 118–121).

Until now, attention has been paid mostly to the mental map as a means to navigate: in neighborhoods, cities, etc. This paper examines, however, how the mental map may serve as a means to express ‘ubiquity’ within the framework

Fig. 1 German peripheral locations in the Deutschlandlied

Fig. 2 Dutch peripheral locations Delfzijl and Maastricht

of a state, using names in the national periphery. The periphery, here, is not the zone where the national sentiment is at its weakest or at least weakening, it is just the zone where it stops. It is the border zone that delimits the nation as a whole.

Cognitive mapping has been defined (Kitchin and Stewart Fotheringham 1997, 278, with reference to Downs and Stea 1973, 8–26) as “the study of how we consciously, and more commonly unconsciously, acquire, learn, develop, think about and store data relating to our everyday geographic environment” (italicization by RR). Obviously, no ‘collective’, shared-by-all mental map exists: some people have mental maps of a geographical nature, others dispose of photograph-like mental images. The present study assumes that, within the variety of possible mental maps concerning

the concept ‘all over the country’, certain biases and trends can be discovered.

Mental map literature varies largely in the scale size of the experiments. Cadwallader (1976) remarks that subjects who make distance estimates within cities were requested to mention walking distances, while distances between cities are expressed as the crow flies; in the latter case, conclusions may be relevant to the present study. Pocock and Hudson (1978) state that cognitive distances between cities are independent from questioned vehicles, travel time or straight line distance. MacEachren (1980: 30) supports this conclusion, maintaining that travel time predicts subjective distance better if it comes to judgments on intra-urban distances, and thus suggesting that the mental map, on a larger scale, is based on straight line distances.

Fig. 3 Peripheral locations of the province of Limburg

Distance estimates may also be influenced by the presence of landmarks and so-called barriers. Sadalla, Burroughs & Staplin (1980: 516) found that the presence of landmarks tends to enlarge distance estimates. Landmarks are described as “strategic foci to and from which an individual travels”. The term “has been used to denote (a) discriminable features of a route, which signal navigational decisions”; (b) discriminable features of a region, which allow a subject to maintain a general geographical orientation, and (c) salient information in a memory task”. This finding would militate the hypothesis that distance estimates like the ones examined in this study are not in a straight line. One may, however, object that expressions like ‘Van Delfzijl tot Maastricht’ must be supposed to arise spontaneously, which eliminates the possibility that the clutter hypothesis

might lead to distance distortions, in the sense that the presence of ‘barriers’ might enlarge cognitive distances.

Which part do compass directions play? Maki et al. (1977) asked college students to verify the truth of displays containing name pairs of US states which were positioned either east–west from each other, or north–south. Judgments concerning north–east name pairs were faster than the east–west pairs. This confirmed the authors’ intuitions: “one tends to name compass points as ‘north, south, east, west’, perhaps since real maps tend to be oriented with respect to the north.” The prominence of the north compass direction was evident from an experiment in which 20 undergraduates were asked to “write the names of the four major compass points”. All subjects wrote north first. Tversky (1981, 415–416) found that subjects have a preference for map

Table 1 Toponym pairs

From	To	Distance (km)
1. Achterhoek (Gl)	Zeeland	196
2. Alkmaar (NH)	Voerendaal (L)	211
	Zevenaar (Gl)	119
3. Almelo (O)	Leiden (ZH)	149
4. Amsterdam (NH)	Delfzijl (Gr)	172
	Echt (L)	156
	Enschede (O)	137
	Genemuiden (O)	98
	Limburg	208
	Maastricht (L)	178
	Schin op Geul (L)	182
	Zeeland	121
	South Limburg	185
5. Apel, Ter (Gr)	Bergen aan Zee (NH)	159
6. Appelscha (Fr)	Maastricht (L)	238
	Schin op Geul (L)	235
	Terneuzen (Z)	249
7. Appingedam (Gr)	Amsterdam (NH)	169
	Heerlen (L)	277
	Schin op Geul (L)	282
	Veghel (NB)	209
8. Assen (D)	Maastricht (L)	245
9. Bergen op Zoom (NB)	Venlo (L)	131
10. Breda (NB)	Amswterdam (NH)	88
	Enschede (O)	162
	Groningen (city; Gr)	220
	Nieuweschans (Gr)	243
	Venray (L)	83
	Winschoten (Gr)	233
11. Breskens (Z)	Delfzijl (Gr)	314
	Groningen (city; Gr)	288
	Hoogezand (Gr)	293
12. Cadzand (Z)	Appingedam (Gr)	319
	Roodeschool (Gr)	322
	Veluwe	186
13. Delft (ZH)	Enschede (O)	174
14. Delfzijl (Gr)	Cadzand (Z)	323
	Goes (Z)	288
	Maasbracht (L)	253
	Maastricht (L)	288
	Middelburg (Z)	302
	Schin op Geul (L)	285
	Terneuzen (Z)	305
	Vaals (L)	291
	Valkenburg [L]	284
	Venlo (L)	224
	Vlissingen (Z)	384
	Zeeland	291
	Zierikzee (Z)	276
15. Doetinchem (Gl)	Kerkrade (L)	123
	Westkapelle (Z) [“Westkappelle”]	202

Table 1 (continued)

From	To	Distance (km)
16. Dokkum (Fr)	Cadzand (Z)	280
	Hulst (Z)	263
	Maastricht (L)	276
	Middelharnis (ZH)	214
	Zeeuws-Vlaanderen	267
	Zierikzee (Z)	233
17. Drenthe	Limburg	263
	Venlo (L)	178
	Zeeland	249
18. Drielandenpunt	Zoutkamp (Gr)	289
19. Egmond (NH)	Doetinchem (Gl)	135
20. Eijdsden (L)	Ameland (Fr)	296
21. Eindhoven (NB)	Bergen op Zoom (NB)	82
	Groningen (city; Gr)	211
	Middelburg (Z)	266
22. Enschede (O)	Volendam (NH)	127
23. Friesland	Achterhoek	139
	Brabant	191
	Limburg	220
	Maastricht (L)	257
	Tilburg (NB)	182
	Zeeland	227
24. Geleen (L)	Alkmaar (NH)	199
25. Goes (Z)	Groningen (city; Gr)	263
	Staphorst (O)	202
26. Groningen [city, Gr]	Amsterdam (NH)	147
	Bergen op Zoom (NB)	246
	Breda (NB)	220
	Geertruidenberg (NB)	205
	Geleen (L)	255
	Goes (Z)	263
	's-Hertogenbosch ("Den Bosch") (NB)	189
	Kerkrade (L)	264
	Laren (NH)	140
	Maastricht (L)	270
	Middelburg (Z)	277
	Nijmegen (Gl)	164
	Oss (NB)	177
	Rotterdam (ZH)	201
	Stavenisse (Z)	251
	Terneuzen (Z)	280
	Zierikzee (Z)	250
	Limburg	292
	North Brabant ("Brabant")	213
	North Holland	129
	Westerschelde	280
	Zeeland	266
	Zeeuws-Vlaanderen	276
	Zuid-Holland	193
	South Limburg	267

Table 1 (continued)

From	To	Distance (km)
27. Haarlem (NH)	Eindhoven (NB)	119
28. Hague, The (ZH)	Arnhem (Gl)	109
	Den Helder (NH)	103
	Emmen (D)	193
	Enschede (O)	177
	Groningen (city; Gr)	199
	Veendam (Gr)	208
	Heerlen (L)	230
29. Heerlen (L)	Ameland (Fr)	284
	Groningen (city; Gr)	262
30. Helder, Den (NH)	Kerkrade (L)	249
	Maastricht (L)	242
	Montfort (L)	219
	Vaals (L)	257
	Valkenburg [L]	244
	Zevenaar (Gl)	145
31. Hengelo (O)	Middelburg (Z)	234
	Scheveningen (ZH)	170
	Vinkeveen (U)	126
32. Hook of Holland (ZH)	Oldenzaal (O)	194
	Den Helder NH)	116
33. Hoorn (NH)	Balkbrug (O)	90
34. Hulst (Z)	Winschoten (Gr)	290
35. IJmuiden (NH)	Maastricht (L)	193
	Tolkamer (Gl)	122
36. Katwijk (aan Zee) (ZH)	Snakkerburen (Fr)	147
37. Kerkrade (L)	Groningen (city; Gr)	264
	Den Helder (NH)	249
38. Klazienaveen (D)	Medemblik (NH)	126
	Schin op Geul (L)	221
39. Leeuwarden (Fr)	Amsterdam (NH)	111
	Limburg	287
	Maastricht (L)	261
	Middelburg (Z)	240
	Roermond (L)	224
	Sas van Gent (Z)	258
40. Limburg	Achterhoek	161
	Friesland	283
	Groningen [province]	292
	Leeuwarden (Fr)	287
	Zuid-Holland	185
41. Maastricht (L)	Bergen op Zoom (NB)	121
	Delfzijl (Gr)	288
	Drenthe	270
	Groningen (city; Gr)	270
	Den Helder NH)	242
	Hemelumer Oldeferd (Fr)	229
	Hook of Holland (ZH)	165
	Leeuwarden (Fr)	261
	Meppel (D)	207
	Nigtevegt (U)	164

Table 1 (continued)

From	To	Distance (km)
	Surhuisterveen (Fr)	262
	Terschelling (Fr)	284
	Vlagtwedde (Gr)	261
	Vlieland (Fr)	275
	Warfhuizen (Gr)	281
42. Medemblik (NH)	Enschede (O)	135
43. Meppel (D)	Terneuzen (Z)	221
	Zierikzee (Z)	193
44. Middelburg (Z)	Friesland	236
	Groningen (city; Gr)	277
	Poppenwier (Fr)	248
	Sint Nicolaasga (Fr)	230
45. Nijmegen (Gl)	Hellevoetsluis (ZH)	117
46. North Brabant (“Brabant”)	Friesland	191
47. Oldenzaal (O)	Katwijk aan Zee (ZH)	171
	Vlissingen (Z)	249
48. Paterswolde (D)	Limburg	284
49. Pingjum (Fr)	Tegelen (L)	202
50. Retranchement (Z)	Dollard (Gr)	335
	Hongerige Wolf (Gr)	329
51. Roermond (L)	Groningen (city; Gr)	229
	Zeeland	153
52. Roodeschool (Gr)	Goes (Z)	288
	Gulpen (L)	296
	Maastricht (L)	295
	Retranchement (Z)	325
	Sluis (Z)	328
	Terneuzen (Z)	306
	Vaals (L)	298 ^a
	Vlissingen (Z)	307
53. Rotterdam (ZH)	Assen (D)	184
	Pieterburen (Gr)	211
54. Sappemeer (Gr)	Cadzand (Z)	305
	Ohé en Laak (L)	238
55. Schiermonnikoog (Fr)	Limburg	238
	Maastricht (L)	294
	Vaals (L)	301
	Valkenburg (L)	291
	Zierikzee (Z)	253
	South Limburg	293
56. Schin op Geul (L)	Groningen (city; Gr)	267
57. Sneek (Fr)	Rotterdam (ZH)	147
58. South Limburg	Amsterdam-Zuid	218
59. Stadskanaal (Gr)	Amsterdam-Zuidoost	153
60. Terneuzen (Z)	Groningen (city; Gr)	280
	Roodeschool (Gr)	305 ^b
61. Terschelling (Fr)	Limburg	249
	Maastricht (L)	284
	South Limburg	287

Table 1 (continued)

From	To	Distance (km)
62. Texel (NH)	Heerlen (L)	254
	Maastricht (L)	252
	Vaals (L)	295
	Venlo (L)	232
	South Limburg	263
63. Uithuizen (Gr)	Waterlandkerkje (Z)	313
64. Uithuizermeeden (Gr)	Schin op Geul (L)	290
65. Vaals (L)	Delfzijl (Gr)	291
	Helder, Den (NH)	257
	Pingjum (Fr)	263
	Roodeschool (Gr)	299
	Winschoten (Gr)	272
66. Veendam (Gr)	Maastricht (L)	263
	Venlo (L)	199
67. Veenendaal (U)	Maastricht (L)	131
68. Veghel (NB)	Harderwijk (Gl)	81
69. Venlo (L)	Oldeberkoop (Fr)	174
	Texel (NH)	209
	Vlissingen (Z)	180
	Amsterdam (NH)	120
70. Venray (L)	Amsterdam (NH)	120
71. Vlagtwedde (Gr)	Schin op Geul (L)	256
72. Vlieland (Fr)	North Brabant (“Brabant”)	198
	Eijsden (L)	283
	Maastricht (L)	275
73. Vlissingen (Z)	Groningen (city, Gr)	283
74. Volendam (NH)	Cadzand [“katzand”] (Z)	169
	Hilversum (NH)	30
75. Waddenzee	Zeeuws-Vlaanderen	267
76. Wassenaar (ZH)	Heerlen (L)	177
	Hoogezand (Gr)	195
77. Winschoten (Gr)	Heerlen (L)	261
78. Winterswijk (Gl)	Heerlen (L)	131
79. Zeeland	Ameland (Fr)	249
	Apel, Ter (Gr)	268
	Enschede (O)	224
	Friesland	227
	Groningen (prov)	266
	Midden-Limburg	148
	Assen (D)	233
80. Zierikzee (Z)	Joure (“Jouwere”) (Fr)	194
	Klazienaveen (D)	241
	Roodeschool (Gr) (“Rodeschool”)	275
	Middelburg (Z)	203

Province name abbreviations: D Drenthe, Fr Friesland, Gl Gelderland, Gr Groningen, L Limburg, NB North Brabant, NH North Holland, O Overijssel, U Utrecht (prov.), Z Zeeland, ZH South Holland

^awww.afstanden.com

^bwww.afstanden.com

Table 2 Most frequent peripheral toponyms (> 10 times attested) in name pairs expressing ubiquity

Toponym	Frequency in name pairs	Initial position	Final position
1. Maastricht	150	22	128
2. Groningen (city)	107	64	43
3. Limburg	91	16	75
4. Groningen (province)	97	46	51
5. Friesland	43	22	21
6. Delfzijl	41	37	4
7. Zeeland	38	19	19
8. Den Helder	30	16	14
9. Amsterdam	27	18	9
10. Roodeschool	19	12	7
11. Leeuwarden	18	12	6
12. Vaals	16	7	9
13. Middelburg	15	7	8
14. Terneuzen	14	2	12
15. Zuid-Limburg	13	8	5
16. Cadzand	12	4	8
17. Dokkum	11	11	–
18. Heerlen	11	5	6

orientations in terms of cardinal compass directions (N–S, E–W), as a simplification of ordinal compass directions like NW–SE.

The focus is on the Netherlands and its present situation. Only single name pairs are examined, leaving combinations of two or more pairs aside. Willemstad, the capital of Curaçao (having a country status within the Kingdom of the Netherlands), mentioned one time, has been left aside.

2 Problem

First, an inventory will be made of categories of geographic features occurring in name pairs. Which of them are deemed most prototypical on the mental map if the concept of ‘ubiquity’ is involved, and why? Second, a few questions may arise with regard to the directions in name pairs, in terms of compass points. Does the mental map prefer cardinal compass points to ordinal ones? Is there a preference for any combination of compass points, for example, for cardinal directions (instead of ordinal ones)? And if so, are the combinations of compass points concerned associated with the longitudinal direction (if the country concerned has oblong contours, like the Netherlands)? One may expect that if a country has oblong contours, there would be a preference for the longest possible line between the extremities; this would illustrate ‘ubiquity’ better than choosing a shorter axis.

The name order in name pairs, too, will be examined. Does the mental map prefer a fixed pattern in the name order within name pairs? For example, is there a clear tendency to prefer north–south to south–north, considering the prominence of the northern compass point?

And finally, if toponyms refer to residential nuclei, does their prototypicality correlate with the size of their population, or with their news coverage?

3 Methods

Toponyms were collected by means of co-occurrence analysis. Based on a given toponym Delfzijl (well known in the Netherlands as a northern near-border toponym and as such often related to Maastricht in the south, but sometimes related to other southern toponyms), toponym pairs have been collected by means of LexisNexis Academic (selection: national newspapers). Search words were “van [toponym A] tot” (i.e., from [toponym A] to [toponym B]). For example, the search “van Delfzijl tot” generated, among others, Maastricht (“van Delfzijl tot Maastricht”), which in its turn generated, among others, Den Helder (“van Maastricht tot Den Helder”), and so on. This process was continued until no more new toponyms showed up.

Subsequently, straight line distances between names in toponym pairs were measured from http://nl.afstand-meten.himmera.com/afstand_tussen-vaals-delfzijl-meten_routeplanner_wegenkaart_km-59500.html. This database is, however, not infallible. In a few cases, www.afstanden.com had to furnish correct distances. In another few cases, neither database succeeded in mentioning the correct distance. Distances to Zeeuws–Vlaanderen (occurring in the name pairs Dokkum–Zeeuws–Vlaanderen and Groningen–Zeeuws–Vlaanderen) and to Limburg (in Friesland–Limburg, Terschelling–Limburg) were rendered incorrectly. I solved this problem by replacing Zeeuws–Vlaanderen by Zaamslag (a village in the middle of the region) and Limburg by Roermond (in the middle of Limburg).

Name pairs were classified according to the positions of lines—in terms of compass point pairs—joining the locations concerned. Cardinal as well as ordinal compass points have been used. Locations on lines between NNW and NNE were counted as N, locations between NNE and ENE were counted as NE, etc.

Out of all LexisNexis occurrences, only (presumably) spontaneously invented locations have been included in this study, provided that they refer to the whole country indeed. This applies, for example, to name pairs in contexts like “De mensen komen overal vandaan, van Breskens tot Groningen” [The people [viz. visitors to a famous Amsterdam church]

that come from everywhere, from Breskens to Groningen], or “Krantenjongens en –meisjes van Vaals tot Roodeschool” [Newspaper boys and girls from Vaals to Roodeschool”. Name combinations in contexts dealing with companies, institutions, etc., based in various locations, have been omitted; in such cases, the writer may have felt the need to choose a location from those where the company or chain has its branches. This applies, for example, for the name pair in a text about theater: “op podia van Maastricht tot Groningen” [on stages from Maastricht to Groningen]. Neither have thematically connected name pairs been allowed, for example, “langs de hele kust, van Cadzand tot Schiermonnikoog” [alongside the whole coast, from Cadzand until Schiermonnikoog] has been neglected, both being coastal locations.

A few name pairs consist of toponyms with the initials A and Z, respectively (e.g. “van Amsterdam tot Zutphen”). These name combinations evoke the image of a list and, therefore, the concept of completeness, rather than the image of a long distance, and have been omitted in this study. The same applies to name pairs using alliteration (“van Dokkum tot Domburg”) and rhyme (“van Zandvoort tot Montfoort”).

One of the border toponyms is ambiguous: Groningen may refer to the province as well as the provincial capital. I tried to disambiguate this name, interpreting it as the city name if it was combined with settlement names, and as the province name wherever it was combined with the name of another province (e.g. Limburg), to a region or to waters.¹

4 Results

244 name pairs have been found (see Table 1), in which 159 unique names occur. The latter encompass the following categories of geographic features:

- a. 111 residential nuclei, like Maastricht,
- b. 7 provinces, like Friesland,
- c. 5 sub-provincial regions, like the Achterhoek (part of the province of Gelderland),
- d. 5 islands (also being municipalities), like Schiermonnikoog,
- e. 2 city quarters, like Amsterdam-Zuid,
- f. 2 estuaries (Dollard, Westerschelde),
- g. 1 former) municipality (not being one residential nucleus): Hemelum Oldeferd,
- h. 1 inland sea (Wadden Sea),
- i. 1 place where three countries meet (Drielandenpunt).

¹ One can, however, not always be sure whether the province is meant or the city. For example, one of the sources combines the city of Leeuwarden with the province of Limburg (“van Limburg tot Leeuwarden”; see *Trouw* November 22, 2012; see *LexisNexis*); another source combines the city of Maastricht with the province of Drenthe (*Parool* January 20, 2005; see *LexisNexis*).

The longest measured distance is 329 km (Retranche-ment–Hongerige Wolf), the shortest one 30 (!) km (Volendam–Hilversum).

Eighteen names occur more than ten times (see Table 2; Fig. 4).

It would seem conceivable that the prototypicality of toponyms would more or less exactly correlate with their vicinity to the border. Some of the most prototypical items, however, are considerably more remote from the border (or from the North Sea coast) than less prototypical ones (see Tables 3, 4, 5; Figs. 5, 6, 7). To inventorize such less prototypical ‘competitors’ (parts of) circles were drawn from the starting points of lines through the ‘target locations’, for example, in the case of the pair Groningen–Maastricht, the circle would run through Maastricht, the ‘target location’; the area south of the circle is thus beyond the target location. Maastricht then proves to be less southerly than, for example, the towns Vaals and Eijsden.

This raises the question, whether—if nuclei are involved—either the population or the news coverage is decisive. One might argue that the population is not an ideal criterium because it is doubtful whether the average ‘naive’ mind knows population figures. An argument in favor of news coverage is, on the other hand, that it takes account of, for example, scarcely populated locations that have, e.g. for touristic reasons, a large news coverage. The population may indeed be decisive with regard to, for example, Maastricht (pop. 122,000 inhabitants) and Eijsden (4000), and the same applies to the northern city of Groningen (pop. 216,000), less northerly, however, than Delfzijl (25,000).

This argument is, however, contradicted by the case of Middelburg, in the southwestern part of the country (7 occurrences in name pairs; 47,000 inhabitants); south of Middelburg is Vlissingen (44,000 inhabitants, 6 occurrences in name pairs). Both cities also have about the same news coverage (see Table 4).²

Possibly, Middelburg’s status as a provincial capital made this city the most prototypical toponym in this part of the country. Provincial capitals get usually special attention in elementary school education and knowledge about them can have been at the root of many people’s mental map. News coverage seems thus not a reliable predictor of prototypicality. This is confirmed by the case of, for example, Roodeschool, being number 10 on the prototypicality

² According to Van den Burg (2015), well-known locations—in my terms, locations having a large news coverage—are estimated closer than those which are known less. This does, however, not necessarily contradict my finding that the most peripheral locations in my data are well-known locations: in Van den Burg, subjects were *presented* with toponyms, while in the present study it is people who *invent* toponyms.

Fig. 4 Geographical position of the top-18 peripheral toponyms. Small letter size names refer to residential nuclei, large ones to provinces

Table 3 Maastricht and locations south of it (Source: LexisNexis Academic. Frequencies based on NRC Handelsblad 1-6-2013—31-12-2015)

Toponym	Population	Name frequency in LexisNexis
Drielandenpunt	—	15
Eijsden	4000	23
Gulpen	3000	9
Maastricht	122,000	1280
Vaals	9000	41

list but scoring no more than once in NexiLexis, while its ‘competitor’ Appingedam (not on that list) scores no less than 50 times.

Table 6 demonstrates a strong preference for the longitudinal directions, varying from N–S/S–N to NE–SW/SW–NE. Distances between name pairs running NE–SW/SW–NE are, however, mostly longer than those between N–S and S–N. For example, Delfzijl—the northernmost prototypical location—is situated 323 km from the southwesternmost location Cadzand (NE–SW), but 291 km from Vaals, the southernmost location (Fig. 8). This refutes the

Table 4 Groningen and residential nuclei north of it (Source: LexisNexis Academic. Frequencies based on NRC Handelsblad 1-6-2013–31-12-2015)

Toponym	Population	Name frequency in LexisNexis
Appingedam	12,000	50
Delfzijl	25,000	101
Groningen (city)	216,000	Appr. 1320 ^a
Hongerige Wolf	100	9
Nieuweschans	1000	5
Pieterburen	300	16
Roodeschool	1300	1
Uithuizen	5000	7
Uithuizerveen	2000	5
Warfhuizen	200	–
Zoutkamp	1000	11

^aAccording to a random sample, 60 percent of the hits refers to the city (not the province)

hypothesis that in oblong contoured countries there would be an absolute preference for the longest possible distance.

Furthermore, the data in Table 5 demonstrate a main preference for N–S/N–S name combinations (24 ×); NE–SW/SW–NE score 14 ×. This would suggest that the mental map prefers cardinal compass points to ordinal ones; below, however, a counter-argument will be presented (see Sect. 5).

As mentioned, name pairs in the categories E–W/W–E are absent in the top-18 list; this applies also to SE–NW/NW–SE. On a lower level of prototypicality, however, such name pairs do occur. The W–E combination, The Hague–Enschede, has been attested twice, other W–E combinations score each only once, and E–W combinations score each only once. The figure with regard to The Hague–Enschede, ranking highest in prototypicality, is too low to allow for the conclusion that there would be a preference for W–E.

Fig. 5 Maastricht and ‘competing’ locations south of it

Fig. 6 Groningen and ‘competing’ nuclei north of it

Do the data show a clear preference in the name order within name pairs? One may expect that there is a tendency to prefer N–S to S–N, considering the prominent position of the northern compass point. Table 7 refutes this: the sequence N–S ranks 17 $\times$, S–N 18 $\times$. However, the figures with regard to NE–SW/SW–NE attribute to the conclusion that there is a preference for N–S/S–N in a broad sense (namely including NE–SW/SW–NE). The sequence NE–SW scores 3 $\times$, while SW–NE name pairs are absent.

A highly surprising name as part from peripheral name combinations is Amsterdam. Nobody in the Netherlands

would view the nation’s capital as peripheral, although it is situated as few as 30 km from the North Sea. The questionable position of Amsterdam as part of a peripheral name pair must be due to its prominence as the national capital. If this hypothesis is correct, ‘ubiquity’ can also be expressed using a prominent toponym as one part of a name pair, contrasting with a purely ‘remote’ name, which makes one think of the abovementioned high status of provincial capitals.

None of the Wadden Islands (Texel, Vlieland, Terschelling, Ameland, Schiermonnikoog) is in the top-18. Two explanations—which do not exclude each other—are

Fig. 7 Middelburg and ‘competing’ nuclei south of it

possible. First, the islands are not experienced as very remote from the Randstad perspective (apart from this, vicinity to the border/coast is not decisive, as we have seen): Randstad is the name for the crescent-shaped megalopolis in Western Holland with 7.1 million inhabitants which is the economical, cultural and political center of gravity in the country (Fig. 9).³ Second, the islands may not be experienced as highly essential parts of the country. In that connection, it is interesting to see that France is nicknamed L’Hexagone, and that in images, the ‘hexagon’ is rendered without Corsica or any other French island. Obviously, the mental map displays

a tendency to reduce country contours to a geometrical figure (Tversky 1981).

Reversely, the mental map may extend the country’s contours by incorporating parts of adjoining countries that are sticking out. First, the results show that some connecting lines between name pairs run partly through Belgian territory, for example, in the name pairs Middelburg–Maastricht (1 ×) and Amsterdam–Maastricht (1 ×) (Fig. 10). An extreme example is Maastricht–Bergen op Zoom (90 percent running through Belgium!). Likewise, the line Groningen–Vaals runs partly through German territory. All this, too, points to the idea that the mental map simplifies the real situation.

Can the contours of the Netherlands be represented by a geometrical figure comparable with the French hexagon? The list of top-18 prototypical toponyms seems to confirm

³ There is no total consensus on the limits of the Randstad. On the geographical perception of Randstad limits see Wakefield (1977).

Table 5 Middelburg and locations south of it (Source: LexisNexis Academic. Frequencies based on NRC Handelsblad 1-6-2013—31-12-2015)

Toponym	Population	Frequency in LexisNexis
Breskens	4000	15
Cadzand	700	17
Domburg	1000	15
Hulst	10,000	141
Middelburg	47,000	169
Retranchement	400	1
Sas van Gent	3000	3
Sluis	2000	103
Terneuzen	25,000	56
Vlissingen	44,000	163
Waterlandkerkje	500	–
Westkapelle	2000	15

this. If we discern (1) northern toponyms in the provinces of Groningen and Friesland as one angular point, Den Helder as a second point, Middelburg as the third one and Maas-tricht as the fourth one, this results in a quadrant (Fig. 11). If we would treat Groningen and Friesland as separate angular points, the contours would remain almost the same.

5 Conclusions

The data support the idea that ‘naive’ individuals possess a basic conscience with regard to the cartographic contours of a country like the Netherlands. The overwhelming majority of geographical features, deemed essential on the mental map if the concept of ‘ubiquity’ is involved, are residential nuclei. Research outside the Netherlands will have to prove

Fig. 8 North–South and Northeast–Southwest lines from Delfzijl

Table 6 Positions of lines, in terms of compass point pairs, joining prototypical residential nuclei (based on top 18) and nuclei related with these (newspaper frequency > 1 in the name pairs concerned)

Toponyms (belonging to top 18)	Occurring in name pair(s) with	N–S/S–N	NE–SW/ SW–NE	E–W/W–E	SE–NW/ NW–SE	Distance in km
1. Maastricht	Delfzijl	+				288
	Groningen (city)	+				270
	Den Helder	+				242
	Leeuwarden	+				261
	Terschelling	+				284
	Vlieland	+				271
2. Groningen (city)	Goes		+			263
	Breda		+			220
	Kerkrade	+				264
	Maastricht	+				270
	Middelburg		+			277
	Terneuzen		+			280
3. Delfzijl	Cadzand		+			323
	Maastricht	+				288
	Terneuzen		+			306
	Vaals	+				291
	Valkenburg	+				284
	Venlo	+				224
4. Den Helder	Vlissingen		+			309
	Heerlen	+				244
	Kerkrade	+				185
	Maastricht	+				242
	Vaals	+				192
	Maastricht	+				177
5. Amsterdam	Retranchement		+			325
	Terneuzen		+			306
	Vaals	+				299
	Vlissingen		+			307
7. Leeuwarden	Maastricht	+				261
	Middelburg		+			239
8. Vaals	Delfzijl	+				291
	Den Helder	+				257
	Roodeschool	+				299
9. Dokkum	Cadzand		+			280
	Maastricht	+				276
10. Heerlen	Den Helder	+				244

+ Applicable

whether this is a general pattern (contrary to, for example, the hydronyms in the Deutschlandlied).

The results presented confront us with a major problem. Why are the province of Friesland and its towns Leeuwarden and Dokkum considerably lower in the top-18 list than Groningen (city), although Leeuwarden lies almost as far from Maastricht (nr. 1 on the top-18) as Groningen, with a difference of no more than 8 km?

The solution of this problem may lie in the perspective from which the peripheral toponyms are chosen. Viewing that the corpus is based on national newspapers, it seems probable that the toponyms are mostly chosen by people living in the Randstad. From their perspective, Friesland is closer to home than Groningen. If this hypothesis is correct, it makes the Randstad itself part of the mental map. The Randstad perspective may also explain why Zeeland

Fig. 9 North-South and Northeast-Southwest lines from Delfzijl

and its towns, too, rank much lower than Groningen (and even Friesland); Zeeland, too, is not experienced as very remote—from the Randstad, that is.

If we accept that the Randstad perspective is a correct assumption, it would, moreover, correct the suggestion, mentioned above (see Sect. 4), that the lower position of Zeeland and Middelburg on the list of prototypical names would be due to a preference on the mental map for cardinal compass points. As mentioned above (see Sect. 4), my hypothesis that, in an oblong country, the most prototypical toponyms

are related to the longest distances has also been refuted, at least with regard to the Netherlands. The most prototypical locations are Maastricht and Groningen (N–S), but the distance between them is shorter than the one between, for example, Groningen–Middelburg (NE–SW) (Table 7).

If we, furthermore, accept the idea that distances between remote locations expressing ubiquity are primarily perceived from a Randstad perspective, but, furthermore, chosen based on their remoteness from the other location referred to in the name combination, this may also explain why—apart

Fig. 10 Simplification by incorporating parts of adjoining countries

from the provincial capital criterium—prototypical toponyms are chosen within each ‘remote’ area. For example, Roodeschool, a tiny village, ranks relatively high on the list because it is the most northeastern location on the Dutch mainland, from the Randstad perspective.

The (doubtless mostly unconscious) process of choosing prototypical toponyms may thus mostly encompass three stages: (1) choosing a region in the northern and southern

parts of the country that are remote as well with regard to the Randstad as with regard to each other (Groningen region, South Limburg); (2) in each region concerned, the provincial capital in that region is chosen as the most prototypical location (Groningen, Leeuwarden, Maastricht). The only exception is Den Helder (province North Holland), Haarlem being the provincial capital (this city, 8 km from the North Sea coast, is not in the list of 18 most prototypical locations,

Fig. 11 The Netherlands, represented by a geometrical figure, based on prototypical toponyms

undoubtedly because it is part of the Randstad and is not felt as peripheral); (3) within each region, other (less prototypical) locations are chosen on condition that they (a) lie farther from the Randstad and (b) are more peripheral than

the province's capital (Vaals, Terneuzen, Cadzand, Delfzijl, Roodeschool, Dokkum). Heerlen is an exception, here, lying more northerly than Maastricht and Vaals.

Table 7 Name order frequencies in prototypical toponyms (based on top-18 and combinations with these)

Initial position within name combination	Corresponding final toponym	N–S	S–N	NE–SW	SW–NE	E–W	W–E
1. Maastricht	Delfzijl		+				
	Groningen (city)		+				
	Den Helder		+				
	Leeuwarden		+				
	Terschelling		+				
	Vlieland		+				
2. Groningen (city)	Goes				+		
	Breda				+		
	Kerkrade	+					
	Maastricht	+					
	Middelburg		+				
	Terneuzen				+		
3. Delfzijl	Cadzand		+				
	Maastricht	+					
	Terneuzen		+				
	Vaals	+					
	Valkenburg	+					
	Venlo	+					
4. Den Helder	Vlissingen				+		
	Heerlen	+					
	Kerkrade	+					
	Maastricht	+					
	Vaals	+					
	Maastricht	+					
5. Amsterdam							
6. Roodeschool	Retranchement		+				
	Terneuzen		+				
	Vaals	+					
	Vlissingen		+				
7. Leeuwarden	Maastricht	+					
	Middelburg		+				
8. Vaals	Delfzijl	+					
	Den Helder	+					
	Roodeschool	+					
9. Dokkum	Cadzand						
	Maastricht	+					
10. Heerlen	Den Helder		+				

+ Applicable

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